Special Issue

Applications of Fractals and Fractional Calculus in Nuclear Reactors

Message from the Guest Editor

Fractional calculus has been applied in several areas in the last 45 years, including physics, electrical engineering, robotics, signal processing, chemical, bioengineering, and mathematics, but mostly in chaos and control theory. In the field of nuclear science and technology, its history is much shorter; however, there has been a significant rise in its application since 2010. Fractional models of nuclear science and technology have been developed to overcome certain limitations related to the classical approaches, considering more general physical scenarios and non-local and memory effects in the modeling of the neutron population. Due to the advances and results achieved in nuclear science and technology in the last 15 years, many researchers have great interest in this field of research, which contributes to the more realistic description of nuclear power reactors. This Special Issue on "Applications of Fractals and Fractional Calculus in Nuclear Reactors" is dedicated to analyzing nuclear reactor dynamics with fractals and fractional modeling.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Fractal and Fractional (*Fractal Fract.*) is a scholarly online journal which provides a forum for discussion on new original models and methods in fractals and fractional calculus both from theory and applications. It is a peer-reviewed, open access journal that publishes high quality original research articles, review papers and short communications.

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